CLAIMS

What is claimed is:

1. An apparatus, comprising:

a first circuit to store a global confidence history;

a second circuit to store a global prediction value history;

a first index function to produce a first index signal from said global confidence history; and

a first pattern history table to retrieve a value responsive to said first index signal.

2. The apparatus of claim 1, wherein said first index function to use an instruction pointer signal.

3. The apparatus of claim 2, wherein said first index function to use said global prediction value history.

4. The apparatus of claim 1, wherein said first pattern history table to store a confidence count.

5. The apparatus of claim 4, wherein said confidence count to increment subsequent to a correct prediction.

6. The apparatus of claim 4, wherein said confidence count to decrement on an incorrect prediction.

7. The apparatus of claim 4, wherein said confidence count to clear on an incorrect prediction.

8. The apparatus of claim 4, wherein said confidence count to form a confidence value signal by utilizing a threshold.

9. The apparatus of claim 7, wherein said confidence value signal to update said global confidence history.

10. The apparatus of claim 7, further comprising a second pattern history table to retrieve a predicted value.

11. The apparatus of claim 10, wherein said confidence value signal to mask said predicted value.

12. The apparatus of claim 11, wherein said apparatus to issue a predicted value signal including combinations predicted true and confident, predicted false and confident, and not confident.

13. The apparatus of claim 1, wherein said first circuit and said second circuit are speculative registers.

14. The apparatus of claim 13, further comprising a third circuit to store an architectural global confidence history, and a fourth circuit to store an architectural global prediction value history, wherein said third circuit to update said first circuit and said fourth circuit to update said second circuit.

15. A method, comprising:

creating a first index using a global confidence history; and

applying said first index to a pattern history table to retrieve a value.

16. The method of claim 15, wherein said creating also uses an instruction pointer.

17. The method of claim 15, wherein said creating also uses a global prediction value history.

18. The method of claim 15, wherein said value includes a confidence count.

19. The method of claim 18, further comprising comparing said confidence count to a threshold.

20. The method of claim 19, further comprising issuing a confidence value responsive to said comparing.

21. The method of claim 20, further comprising updating said global confidence history with said confidence value.

22. The method of claim 18, wherein said confidence count is reset subsequent to an incorrect prediction.

23. A system, comprising:

a processor including a first circuit to store a global confidence history, a first index function to produce a first index signal from said global confidence history, and a first pattern history table to retrieve a value responsive to said first index signal

an interface to couple said processor to an input/output circuit; and

an audio input/output circuit.

24. The system of claim 23, wherein said first index function to use an instruction pointer signal.

25. The system of claim 24, wherein said first index function to use said global prediction value history.

26. The system of claim 23, wherein said first pattern history table to store a confidence count.

27. The system of claim 26, wherein said confidence count to increment subsequent to a correct prediction.

28. The system of claim 26, wherein said confidence count to clear on an incorrect prediction.

29. The system of claim 26, wherein said confidence count to form a confidence value signal by utilizing a threshold.

30. The system of claim 29, wherein said confidence value signal to update said global confidence history.

31. The system of claim 26, further comprising a second pattern history table to retrieve a predicted value.

32. The system of claim 26, wherein said confidence value signal to mask said predicted value.

33. The system of claim 32, wherein said apparatus to issue a predicted value signal including combinations predicted true and confident, predicted false and confident, and not confident.

34. The system of claim 23, wherein said first circuit and said second circuit are speculative registers.

35. The system of claim 34, further comprising a third circuit to store an architectural global confidence history, and a fourth circuit to store an architectural global prediction value history, wherein said third circuit to update said first circuit and said fourth circuit to update said second circuit.

36. An apparatus, comprising:

means for creating a first index using a global confidence history; and

means for applying said first index to a pattern history table to retrieve a value.

37. The apparatus of claim 36, wherein said creating also uses an instruction pointer.

38. The apparatus of claim 36, wherein said creating also uses a global prediction value history.

39. The apparatus of claim 36, wherein said value includes a confidence count.

40. The apparatus of claim 39, further comprising comparing said confidence count to a threshold.

41. The apparatus of claim 40, further comprising issuing a confidence value responsive to said comparing.

42. The apparatus of claim 41, further comprising updating said global confidence history with said confidence value.

43. The apparatus of claim 39, wherein said confidence count is reset subsequent to an incorrect prediction.